

SOME TELEGRAPH FIGURES.

The Number of Operators—Ninety-Eight Per Cent of them are Employed by Railroad Companies—In 1902 There Were 1,318,330 Miles of wire in the United States—Four Different Systems of Operating Wires—The Telegraph the Outgrowth of Ancient Methods of Signaling—Early Lines in This Country—Telegraphy a Handicraft.

Washington Correspondence Charlotte Observer.

There are 55,852 telegraph operators in the United States, 48,628 men and 7,229 women according to the last census. Figures vary as to the number of these out on a strike just at present, according as you get your information from the managers of the telegraph companies or from the officers of the Telegraphers' Union.

Of the number of persons giving their occupation as "telegraph operators" 30,336 are railroad telegraphers. The remaining 15,516 are engaged as commercial telegraph operators, including those employed at the regular telegraph offices of the Western Union and the Postal Companies, those working on leased wires and newspapers and various business concerns. At least 98 per cent. of all the telegraph operators in the United States are in the employ of one of the two great telegraph companies, leaving about 2 per cent. to work on leased wires. Some of the operators on leased wires are under contract with one of the two telegraph companies, their services being leased with the wires.

In 1880 there were 77 systems of telegraph in operation throughout the United States, this number including six operated by the Western Telegraph Company under different names. In 1902 the number of systems was reduced to 25, consolidation and amalgamation bringing about the reduction. In 1880 there were 291,213 miles of wire, while in 1902 the number of miles had been increased to 1,318,350, which includes the number of miles of wire operated by the Western Union Telegraph Company outside of the United States, but does not include the 16,277 nautical miles of cable operated by the submarine cable system. In 1880 according to a monograph issued by the Census Bureau, under the subject of "Telephone and Telegraphs," there was paid in salaries and wages \$4,886,128, while in 1902, the year in which the special report was made, there were paid in salaries and wages \$15,089,873.

FINANCES OF THE COMPANIES.

The capital stock of the companies reported in 1902 was \$162,949,525 with a total revenue of \$40,980,775, with total assets of \$195,508,775. Those companies paid \$6,256,693 in dividends and \$1,950,292 in interest on bonds. In all these respects as well as in the number of messages, the telegraph was surpassed by its younger rival, the telephone; and, while the telegraph has intrinsically grown rapidly and has in itself the elements of steady increase, the statistics contained in the special report from the Census Bureau gives every warrant for the belief that each year must see a wider disparity between these two vital means of

Rising from the Grave.

A prominent manufacturer, Wm A. Fertwell, of Luoma, N. C., relates a most remarkable experience. He says: "After taking less than three bottles of Electric Bitters, I feel like one rising from the grave. My trouble is Bright's disease, in the Diabetes stage. I fully believe Electric Bitters will cure me permanently, for it has already stopped the liver and bladder complications which have troubled me for years." Guaranteed by all druggists. Price only 50c.

We always keep a big assortment of Ladies' Bracelets—nothing more stylish. McLean-Rozier Co.

intercommunication. This has been particularly emphasized during the strike now on, the long distance telephone being called into service and accomplishing the same results as the telegraph, the difference, of course, being in the time it takes to secure connection between separated points.

The striking decrease between 1880 and 1902 in the number of separate holdings due to the numerous consolidations which have taken place of corporations previously competing or not before under one ownership, has been accompanied by a very great increase in the magnitude of equipment and business. In this connection it is interesting to know that the number of messages received over the million and upwards of miles of telegraph wire were 91,655,287 in 1902, as against 31,708,181 in 1880. In 1880 the number of messages was reported for only 54 companies; of the 23 other companies reported only "receipts from messages," five kept no record and one had had no message business. The average rate for each message in 1902, after deducting the number of cable messages and receipts therefrom was 31 cents, as compared with 43 cents in 1880. The number of telegraph offices in 1902 was 27,877, an increase of 14,867, or 118.8 per cent. over 1880. Of the total number in 1902 20,309 were in railway stations.

There are four different methods of operating telegraph wires: the single or Morse system, by which only one message can be sent by key at a time; the duplex system, by which two messages can be sent simultaneously; and printing and automatic systems, which make possible a higher rate of speed than can be obtained by hand. By one of the latter printing systems the Western Union Telegraph Company has transmitted over 1,500,000 messages, but at the same time they do not gain ground either here or in Europe.

STORY OF THE TELEGRAPH.

From the earliest dawn of civilization there has been an insistent effort to develop and perfect means of communication for the exchange of intelligence. Among some of the most barbaric and primitive races ingenious methods for signaling have long been known, and in the earliest record of the leading nations of antiquity are to be found frequent notes of the speed with which dispatches could be sent, signals exchanged and warnings given over great expanses of country by various noises, columns of smoke by day, bon fires on mountain peaks by night, and other devices, some of which today remain as obscure in their nature as they appear to have been certain in their results. It was in 1632 that Galileo referred to an occult art by means of which sympathetic magnetic needles, though widely separated could be made to exchange signals for purposes of communicating intelligence, but this, it is believed, was merely the echo of a tradition of superstition which descended from the ancients. In 1727 Stephen Gray made an electric discharge from an excited glass tube situated at one end of the line to pass over a circuit some seven hundred feet in length suspended in the air by silk threads and thus effected the motion of a pith ball electro-scope located at the other end. Twenty years later Professor Watson constructed a telegraph line that extended from the rooms

of the Royal Society of London over the house tops and used the earth as the return circuit. A year later our own Benjamin Franklin sent crude signals across the Schuylkill river at Philadelphia. In 1774 an actual working telegraphic line was established at Geneva, Switzerland, by Lesage, who had twenty-four wires insulated in glass tubes, buried in the earth, and employed an ordinary frictional machine to deliver a charge to the wires. This was the dawn of the telegraph of today, with our own Morse as the inventive genius.

MORSE'S INVENTION.

In 1837 Morse filed his caveat in the United States Patent office, and six months later applied for a patent, which he obtained in 1840. In 1837 Morse made a report to the Secretary of the Treasury of the United States with regard to his telegraph system, and in the following year it was exhibited before the President of the United States and his Cabinet. He then attempted to secure aid from Congress for the construction of a line about forty miles in length between Washington and Baltimore, and finally a bill was passed by a small majority appropriating \$30,000 for this purpose. This line was duly constructed and on May 24th, 1844, Miss Ellsworth, daughter of the United States Commissioner of Patents, sent over it the memorable message, "What hath God wrought?" A short time afterwards the national Democratic convention, sitting in Baltimore, nominated Polk for President, and the immediate transmission of the news by telegraph to Washington not only caused a sensation but helped the young invention in many ways. During the session of 1844-45 Congress made an appropriation of about \$8,000 to keep the system in operation during the year and placed it under the supervision of the Postmaster General. A tariff of one cent for every four characters was instituted and Messrs. Alfred Vail and J. H. Rogers, who were associated with Professor Morse in the building and construction of the telegraph, were appointed operators under Professor Morse's superintendence. After the expenditure of the amount appropriated by Congress the government declined to go any further in its assistance, and also refused to purchase the Morse telegraph for \$100,000, the price at which it was offered by the inventor and his associates. Thus contrary to the practice prevailing in Europe the telegraph reverted to private hands, and has so remained up to the present time.

The Morse system has always been based essentially upon the operation of a lever key, the depression and raising of which opening and closing the circuit causes great series of longer and shorter electrical impulses to pass over the wire, thus making corresponding clicks with the sounder, or imprinting themselves on tape, in dots and dashes, the nature and sequence of which translate themselves into letters and numerals. Notwithstanding that three-quarters of a century of tremendous electrical development has occurred since the institution of the first Morse telegraphic system. The whole telegraphic system of the world is still based primarily and essentially upon the skill of the hand; that is to say, upon manual operation as distinguished from mechanical transmission. In other words, telegraphy remains as it was in the beginning, a handicraft.

This is the story of the telegraph. To the thousands who are out of their offices because of wrongs, either real or fancied, it is well known, but to the millions who use the telegraph and who are greatly inconvenienced by the strikes of the telegraphers which involves every section of the country and every business it will be a story full of human interest and will show not only the marvelous development, but still more marvelous possibilities when the companies and their employes meet together in amity and cordial relationship.

ZACH MCGHEE.

That Standard Oil Fine.

Memphis News—Solmitar.

They haven't yet determined how many trains it will take to carry the \$29,240,000 from the Standard Oil's Wall Street vaults, to the government's Treasury unless paid in silver. In such event there would be required 177 flat cars with a capacity of 33,000 pounds.

It would build five first-class tideships or a new subway for New York City.

It would yield a perpetual income of \$4,027 a day.

It would make 914 tons of silver dollars, requiring 304 teams to transport it.

It would build 2,924 homes at \$10,000 each.

It is the income for one year at 4 per cent. on \$731,000,000.

It is about 2 per cent. of the national debt of 1906.

It is 35 cents for every man, woman and child in the whole country.

It would take 43,730 street laborers one year to work out the amount.

It is the annual revenue of Mexico.

It is nearly one-half the capital of the Bank of England.

It is nearly one-half the number of silver dollars in circulation.

It is twenty-nine times the capital stock of the Standard Oil Company of Indiana, the corporation fined.

It is 4,788 times the annual salary of Judge Landis, who imposed the fine.

O. W. Robertson, an adopted son of W. A. Robertson, of Charlotte, was shot through the head and instantly killed last Friday night in Asheville by Policeman J. B. Allison. Robertson was a fireman of the Southern Ry. He was trying to gain admission to a house of ill fame and the officer was summoned and shot the man, claiming that he resisted arrest.

Will Ziglar, a prominent citizen who lived near Madison, shot and killed himself on the morning of the 24th. He leaves a wife and five children. No cause is assigned for the deed.

Mrs. Effie Ingle, of Asheville, while attempting to whip her 12-year-old son last Friday, was struck by the boy and, falling to the floor, ruptured a valve of the heart and died in a few seconds.

An Attractive Booklet.

The Industrial Department of the Seaboard Air Line Railway has just issued a very attractive Magazine devoted to the Industrial and Agricultural Development of the South. This issue contains a very interesting article descriptive of the Jamestown Exposition and will prove very good reading to those who contemplate attending. It contains handsome views of all the Government and State Buildings, Hampton Roads, Birds Eye View of the Grounds, Geographical and Historical maps of Norfolk-Portsmouth and the Jamestown Exposition, and that portion of Virginia in the Vicinity of Jamestown. Copies of this magazine can be secured by addressing C. H. Gattis, Traveling Passenger Agent, Raleigh, N. C.

\$5.25 Round Trip to Norfolk, Va.

The Seaboard now sells coach excursion tickets for all trains on Tuesdays and Fridays to Portsmouth for \$5.25, limited seven days; season tickets, \$12.50; 60 days, \$10.45; 10 days, \$9.45. For other information, see your agent. C. H. Gattis, T. P. A., Raleigh, N. C.

STATE OF OHIO, CITY OF TOLEDO.

LUCAS COUNTY. Frank J. Cheney makes oath that he is senior partner of the firm of F. J. Cheney & Co. doing business in the City of Toledo, Ohio and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of Catarrh that cannot be cured by the use of Hall's Catarrh Cure. Sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1901. A. W. GLEASON, Notary Public. Hall's Catarrh Cure is taken internally, and acts directly on the blood and mucous surfaces of the system. Send for testimonials free. F. J. CHENEY & CO., Toledo, O. Sold by all Druggists, 75c. Take Hall's Family Pills for Constipation.

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